

AMENDMENTS TO THE SPECIFICATION

IN THE SPECIFICATION

Page 19, beginning at line 26, please replace numbered paragraph [0028] with the following paragraph:

-- [0028] Persons skilled in the art may prepare some appropriate primer (e.g., 5'-CCCGGTGCCCGAGGTAGGCG-3' (SEQ ID NO: 20) synthesized in correspondence with 5'-CGCCTACCTCGGGCACCGGG-3' which is a segment from the 61st bp to 80th by in the SEQ ID NO:2), hybridize the primer with commercially available mRNA derived from rodents, or with mRNA prepared from tissues derived from rodents, then carry out reverse transcription, to specifically synthesize a novel cDNA fragment containing a upstream region (5'-terminal side of the gene) of the DNA of the invention,. By inserting the novel cDNA fragment containing the synthetic 5'-terminal region into a plasmid, and carrying out homology cloning such as colony hybridization with use of a part of the sequence SEQ ID NO:2 as a probe, the whole sequence of KIAA0620 gene derived from rodents containing the DNA of the invention can be prepared. Alternatively in other methods, for example, by using the DNA of this invention as a probe, and carrying out homology cloning such as colony hybridization, the 5'-terminal region of KIAA0602 gene derived form various rodents including mouse can be prepared. --

Page 39, beginning at line 22, please replace numbered paragraph [0066] with the following paragraph:

-- [0066] (1) Construction of cDNA library derived from mouse embryo tail bud

With use of an oligonucleotide: 5' -FgcGCACCACTTGTACAAGAAAGCTGGCGGCCGC (T)₁₈ - 3' (SEQ ID NO: 21) having attB1 site (F, g, c represent fluorescein group, phosphorothioate modified G residue, phosphorothioate modified C residue, respectively) as a primer, and mRNA derived from a mouse embryo tail bud (anterior segment mesoblast and segment mesoblast involved in S1, SO, S - 1, and S - 2 on the 11.5th day after ICR mouse fertilization) as a template, double strand cDNA was synthesized by Super Script II reverse transcriptase kit (Invitrogen Japan K. K.). An adapter having attB1 site was ligated to the cDNA. The resultant cDNA was fractioned by size through agarose gel to 1kb - 2kb, 2kb - 3kb, 3kb - 4kb, 4kb - 5kb and 5kb - 7kb. The fractions were transferred by BP reaction to an attP pSPORT - 1 entry vector (Invitrogen) which had been reduced in size, and the resultant substance was introduced to E. coli ElectroMax DH10B strain (Invitrogen) by electroporation. More than 10⁶ transformants appeared on the plate were collected, and after cultivation in a liquid medium at 37°C for 2 to 3 hours, plasmid was prepared. The plasmid was fractioned by size in form of super-coiled plasmid, and the cDNA was transferred to attR pBC destination vector (Invitrogen) by LR reaction. After purification, the plasmid was introduced to DH10B strain by electroporation. The fractioning was repeated for 2 to 3 times to obtain desired size for each fraction. Finally, the plasmid was introduced into DH10B strain for every fraction. The cloning system in above experiment using a homologous recombination

reaction in a test tube followed the method disclosed by Obara (Nucleic Acids Res., 29, e22 (2001) and DNA Research Vol. 9, 47 -- 57 (2002)). --

Page 45, beginning at line 19, please replace numbered paragraph [0080] with the following paragraph:

-- [0080] Particularly, according to the HMMSmart search method (Schultz, J. et. al., 1998, Proc Nati Acad Sci USA, 95: 5857 - 5864), Semaphorin/CD100 antigen domain was identified at the 3rd to the 352nd amino acid from N-terminal in the amino acid sequence represented by SEQ ID NO: 1. According to the HMMPfam search as well as the HMMSmart search, Plexin/Semaphorin/integrin domain was identified at the 371st to the 424th amino acid from N-terminal in the amino acid sequence represented by SEQ ID NO: 1. According to the HMMPfam search, Plexin/Semaphorin/integrin domain was identified at the 524th to the 576th amino acid and the 671st to the 712nd amino acid. Cell surface receptor IPT/TIG domain was identified at the 713rd to the 802nd amino acid from N-Terminal according to the HMMSmart search, and at the 714th to the 802nd amino acids from N-Terminal according to the HMMPfam search. Cell surface receptor IPT/TIG domain was identified at the 803rd to the 889th amino acid from N-terminal according to the HMMSmart search, and at the 804th to the 889th amino acid from N-Terminal according to the HMMPfam search. Cell surface receptor IPT/TIG domain was identified at the 891st to the 970th from N-terminal according to the HMMSmart search, and at the 892nd to the 978th amino acid from N-terminal according to the HMMPfam search. A transmembrane (TM) segment represented by ETAIIVVSIVICSVLLLLSVVALF (SEQ ID NO: 22) was identified at the 1,090th to the 1,112nd

amino acid from N-terminal, according to a search using a general-purpose transmembrane (TM) segment search program SOSUI. --

Page 62, beginning at line 30, please replace numbered paragraph [0113] with the following paragraph:

-- [0113] (7-1)

Producing rabbit polyclonal antibody using synthetic peptide as antigen

As an immunogen (antigen), synthetic peptide prepared based on the amino acid sequence comprising a part of polypeptide encoded by mouse KIAA0620 gene was used to prepare rabbit polyclonal antibody according to conventional method. An antigen was prepared as follows. Cystein was added to the end of 15 amino acid sequence which is about 169 amino acids away from C-terminal of mpf00920 polypeptide sequence (sequence: FLEEQAEKRGISDPD)(SEQ ID NO: 23) to prepare synthetic peptide (sequence: CFLEEQAEKRGISDPD)(SEQ ID NO: 24). The synthetic peptide was carrier-coupled at its N-terminal to keyhole limpet hemocyanin (KLH) as carrier. The resultant peptide was purified to 80% to 90% purity to obtain antigen. Intracutaneous immunization was conducted on Oryctolagus cuniculus var. domesticus GM (female). Immunization was conducted five times: at first time, antigen amount 0.15mg, at second to fifth times, antigen amount 0.3mg was respectively administered about every second weeks. About five weeks after the third intracutaneous immunization and after seven weeks after the fourth immunization, 5ml blood sample was collected, to determine antibody level relative to the antigen according to the ELISA method using HRPO (horseradish peroxidase) binding goat anti-rabbit IgG antibody (CAPPÉL Co.). In two test samples, absorbance (490nm) 3 was obtained for 1000-fold dilution, 2000-fold dilution, 4000-fold

dilution, 8000-fold dilution, and 16000-fold dilution, demonstrating sufficient rise in antibody level in sample blood. About 8 weeks after the second blood collection, 5th sensitization was conducted. About 9 weeks after the sensitization, whole blood was collected for purification of antibody. Antiserum was obtained by isolating the serum from collected blood by centrifugation. The antiserum was used as rabbit polyclonal antibody (anti-mKIAA0620 ab). --

Page 73, beginning at line 24, please replace numbered paragraph [0132] with the following paragraph:

-- [0132] (10)

Compulsive expression of full-length polypeptide of KIAA0620 or its extramembrane region by recombinant cell

As described in the paragraph 0079, from a search using a **ETAIIVVSIVICSVLLLSVVALF** (SEQ ID NO: 22) was found in the 1,090th to the 1,112nd amino acid from N-terminal in the amino acid sequence represented by SEQ ID NO: 1 (the 1,341st to the 1,363rd amino acid in the sequence represented by SEQ ID NO: 15). It was anticipated that the polypeptide of the invention may be a membrane protein because it has a transmembrane (TM) segment. This anticipation was confirmed by following experiment. --